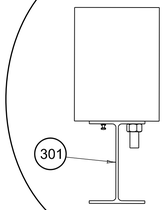
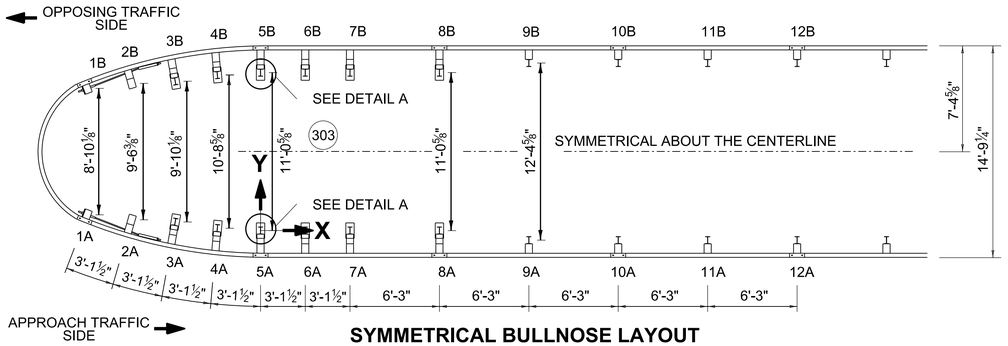
BULLNOSE TERMINAL INSTALLATION LAYOUT GUIDE

SYMMETRICAL BULLNOSE POST COORDINATES (APPROXIMATE)			
POST NUMBER	X (FT, IN)	Y (FT, IN)	ANGLE OF POST (FLANGE FACE)
12A	37' - 6"	- 0' - 8 1/8"	0
11A	31' - 3"	- 0' - 8 1/8"	0
10A	25' - 0"	- 0' - 8 1/8"	0
9A	18' - 9"	- 0' - 8 1/8"	0
8A	12' - 6"	0' - 0"	0
7A	6' - 3"	0' - 0"	0
6A	3' - 1 1/2"	0' - 0"	0
5A	0' - 0"	0' - 0"	0
4A	- 3' - 1/4"	0' - 2"	5
3A	- 5' - 11 5/8"	0' - 7 1/4"	10
2A	- 9' - 1/4"	0' - 9 "	16
1A	- 12' - 1 3/8"	1' - 1 5/8"	21
1B	- 12' - 1 3/8"	9' - 10 3/4"	21
2B	- 9' - 1/4"	10' - 3 3/8"	16
3B	- 5' - 11 5/8"	10' - 5 1/8"	10
4B	- 3' - 1/4"	10' - 10 3/8"	5
5B	0' - 0"	11' - 3/8"	0
6B	3' - 1 1/2"	11' - 3/8"	0
7B	6' - 3"	11' - 3/8"	0
8B	12' - 6"	11' - 3/8"	0
9B	18' - 9"	11' - 8 1/2"	0
10B	25' - 0"	11' - 8 1/2"	0
11B	31' - 3"	11' - 8 1/2"	0
12B	37' - 6"	11' - 8 1/2"	0

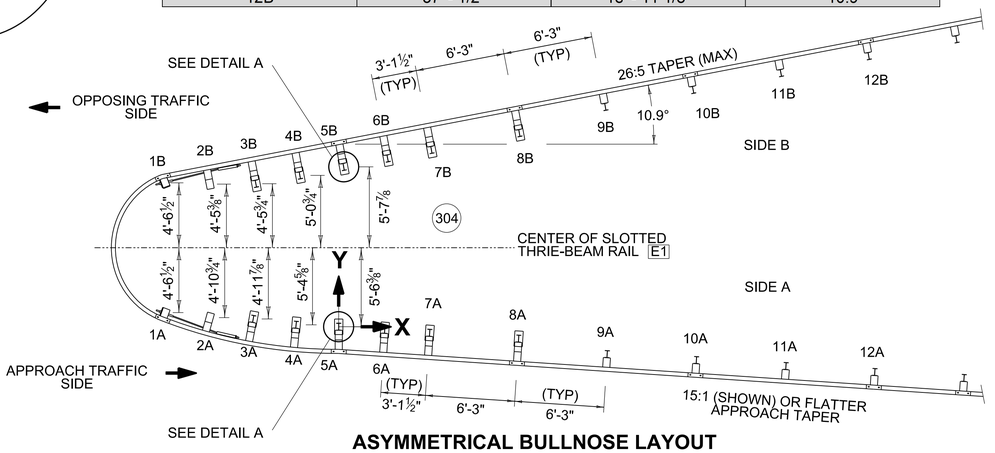
DETAIL A



ASYMMETRICAL BULLNOSE POST COORDINATES (APPROXIMATE)			
POST NUMBER	X (FT, IN)	Y (FT, IN)	ANGLE OF POST (FLANGE FACE)
12A	37' - 5 5/8"	- 3' - 2"	3.8
11A	31' - 3 1/8"	- 2' - 9"	3.8
10A	25' - 0"	- 2' -4"	3.8
9A	18' - 9 1/8"	- 1' - 11"	3.8
8A	12' - 6 7/8"	- 0' - 10"	3.8
7A	6' - 4 1/4"	- 0' - 5 1/8"	3.8
6A	3' - 2 5/8"	- 0' - 2 5/8"	3.8
5A	0' - 0"	0' - 0"	0
4A	- 2' - 11 3/4"	0' - 1 5/8"	5
3A	- 5' - 11 3/4"	0' - 6 1/2"	10
2A	- 9' - 1/4"	0' - 7 5/8"	16
1A	- 12' - 1 1/2"	0' - 11 5/8"	21
1B	- 12' - 1 1/2"	10' - 7/8"	21
2B	- 9' - 1/8"	9' - 11 5/8"	10.9
3B	- 5' - 9 1/2"	10' - 0"	10.9
4B	- 2' - 8 5/8"	10' - 7"	10.9
5B	0' - 4 1/8"	11' - 2 1/8"	10.9
6B	3' - 5"	11' - 9 1/4"	10.9
7B	6' - 5 3/4"	12' - 4 3/8"	10.9
8B	12' - 7 1/2"	13' - 6 1/2"	10.9
9B	18' - 7 5/8"	15' - 4 1/2"	10.9
10B	24' - 9 1/4"	16' - 6 3/4"	10.9
11B	30' - 10 7/8"	17' - 8 7/8"	10.9
12B	37' - 1/2"	18' - 11 1/8"	10.9



SYMMETRICAL BULLNOSE LAYOUT



ASYMMETRICAL BULLNOSE LAYOUT

~ NOTES ~

300 *ON THE PLAN SHEETS, THE DESIGNER MUST DOCUMENT THE APPROXIMATE STATION AND OFFSET, OR APPROXIMATE COORDINATES FOR THE CENTER OF POSTS 5A AND 5B. THESE VALUES ARE INTENDED TO SERVE AS GUIDANCE FOR CONSTRUCTION LAYOUT AND SHOULD ALLOW FOR TYPICAL CONSTRUCTION TOLERANCES.*

301 *DIMENSIONS ARE MEASURED TO THE CENTER OF GUARDRAIL POSTS. REFER TO DETAIL A FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL LAYOUT THE BULLNOSE TERMINAL IN THE FIELD USING THE STATION AND OFFSET (OR OTHER LOCATION INFORMATION) FOR POST 5A, ENSURING A MINIMUM LENGTH OF 50' FROM POST 5 TO THE FRONT OF THE FIXED OBJECT OR OBSTACLE. POST COORDINATES IN THE TABLES ABOVE MAY BE USED TO LAYOUT THE REMAINING POSTS. NORMAL CONSTRUCTION TOLERANCES APPLY.*

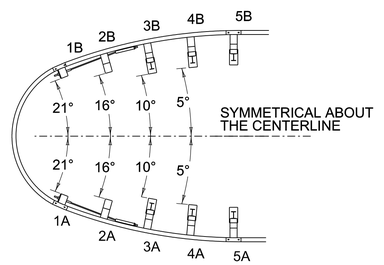
302 *TO ASSIST WITH LAYING OUT THE BULLNOSE TERMINAL, ASSEMBLE THE E1 BEAM AND E2 BEAMS (WITHOUT ATTACHING TO THE POSTS) TO SERVE AS AN ON-THE-GROUND TEMPLATE FOR THE TERMINAL SYSTEM. DURING THIS DEMONSTRATION ASSEMBLY, POST LOCATIONS MAY BE ADJUSTED TO MATCH THE LAYOUT. ERECT THE RAIL ELEMENTS TO FORM A SMOOTH, CONTINUOUS RAIL AS SHOWN IN THE PLANS AND STANDARD DRAWINGS. SET POSTS PLUMB AND ACCURATELY ALIGNED AND SPACED. KYTC WILL REVIEW THE LAYOUT PRIOR TO THE CONTRACTOR DRIVING POSTS.*

303 *FOR THE SYMMETRIC BULLNOSE, LAYOUT AND ANGLE DIMENSIONS FOR POST 1-5 ARE MEASURED FROM THE CENTER OF THE POSTS ON SIDE A TO THE CENTER OF POSTS ON SIDE B.*

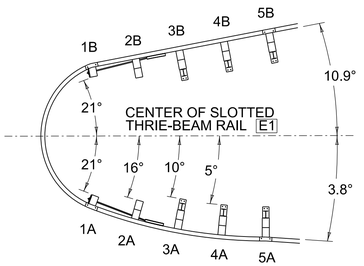
304 *FOR THE ASYMMETRIC BULLNOSE, LAYOUT AND ANGLE DIMENSIONS FOR POST 1-5 ARE MEASURED FROM THE CENTER OF SLOTTED THRIE-BEAM RAIL E1 TO THE CENTER OF EACH GUARDRAIL POST.*

305 *POSTS LABELED AS 'A' SHALL BE ALIGNED TO THE APPROACH TRAFFIC SIDE. THE ABOVE CHARTS SHALL BE MIRRORED ACCORDINGLY IF PLACED IN A DIFFERENT ORIENTATION. THE CHART SPACING SHALL STILL APPLY.*

306 *FOR ADDITIONAL ASSEMBLY INFORMATION, SCAN THE QR CODE TO ACCESS THE MASH BULLNOSE INSTALLATION MANUAL.*



SYMMETRICAL POST ANGLE (APPROX.)



ASYMMETRICAL POST ANGLE (APPROX.)

REVISION DATE: 08/11/2025
REVISION NUMBER: 0

SUBMITTED — DIVISION DIRECTOR — DATE 08-11-2025
APPROVED — STATE HIGHWAY ENGINEER — DATE 08-11-2025

BARRIERS

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
TEAM KENTUCKY TRANSPORTATION CABINET

STEEL THRIE-BEAM BULLNOSE TERMINAL

SHEET 003: BULLNOSE TERMINAL INSTALLATION LAYOUT

STANDARD DRAWING NUMBER
RBE-210